

Nylon Gel Spinning :									
RXT-2 UNIT									
CHANGE NUMBERS WHERE IT IS BLUE COLOR									
MINIMUM PUMP RPM	8								
MAXIMUM PUMP RPM	40								
PUMP SIZE(CC/REV.)	1.16								
NUMBER OF FILAMENTS	14								
PUMP SPEED(RPM)	19.7								
POLYMER DENSITY(GM/CC)	0.98								
THRU-PUT(LBS/HR)	2.95969								
THRU-PUT PER FIL(LBS/HR)	0.21141				THRU-PUT PER FIL(GMS/MIN)			1.5982	
THRU-PUT(GMS/MIN)	22.395				THRU-PUT(GMS/MIN)			22.395	
THRU-PUT PER FIL(GMS/MIN)	1.59964								
TAKE-UP SPEED (Meter/min)	3000				FROM FT/MIN TO M/MIN			0.3048	
DPF GMS @TAKE-UP ROLL (UNDRAWN)	4.79892								
DTX PER FIL GMS @TAKE-UP ROLL (UNDRAWN)	5.33213								
FIL DIAMETER , MICRONS (UNDRAWN)	22.1859							22.186	
FIL DIAMETER , mm (UNDRAWN)	0.02219								
TAKE-UP SPEED (FEET/min)	9842.52								
Spinnerette	diameter				length			L/D	AREA
	0.03				0.09			3	0.0007065
INCH	0.0762				0.2286			3	0.00455806
CM									
YARN DENIER @TAKE-UP ROLL (GMS)	67.1849								
FLOW RATE(CC/MIN)	22.852								
JET VELOCITY (CM/MIN)	5013.54								
JET VELOCITY (meter/MIN)	50.1354				DR @ (TAKE-UP ROLL)				59.8379407
SPIN. CAPILLARY RADIUS (FT)	0.0025								
SPIN. CAPILLARY LENGTH (FT)	0.0075								
THRU-PUT PER FIL(LBm/HR)	0.21141								
DENSITY(LBm/FT ³)	61.1814								
FLOW RATE(FT ³ /SEC.)	9.6E-07								
VISCOSITY (POISE)	3143.9								
VISCOSITY (LBf.SEC/FT ²)	6.56634								
DELTA PRESSURE(PSI)	21.4101								
Stack Draw (calc. From spnt hole dia. And fil dia.)	34.3462								
FINAL REQUIRE DENIER AFTER DRAWIN	10								
DRAWING DRAW RATIO	0.47899								

Table 1

Sample ID.	Starting Conditions	#1	#2	#3	#4	#5	#6	#7	#8
POLYMER TYPE	MBM	MBM		MBM 10% Lactam	MBM 10% Lactam	MBM 10% Lactam	MBM 10% Lactam	MBM 10% Lactam	MBM 10% Lactam
Feeder Setting	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96
water on feeding zone	on	on	on	on	on	on	on	on	on
zone 1 Temp. (deg c)	245	270	250	245	240	235	230	225	225
zone 2 Temp. (deg c)	245	280	250	245	240	235	230	225	225
zone 3 Temp. (deg c)	245	280	250	245	240	235	230	225	225
zone 4 Temp. (deg c)	245	280	250	245	240	235	230	225	225
zone 5 Temp. (deg c)	245	280	250	245	240	235	230	225	225
zone 6 Temp. (deg c)	245	280	250	245	240	235	230	225	225
zone 7 Temp. (deg c)	245	280	250	245	240	235	230	225	225
8 Connecting Plate Temp. (deg. C)	245	280	250	245	240	235	230	225	225
9 Block Temp. (deg.C)	245	280	250	245	240	235	230	225	225
10 Spin Pump Temp. (deg.C)	245	280	250	245	240	235	230	225	225
11 Top Cap. (deg.C)	245	280	250	245	240	235	230	225	225
12 Spin Pack Temp. (deg.C)	245	280	250	245	240	235	230	225	225
Top Heated Sleeve Length (inches)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Top Heated Sleeve Temp. (deg. c)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Bottom Heated Sleeve Length (inches)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Bottom Heated Sleeve Temp. (deg. c)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Barrel Melt Temp. (deg. c)	252	288	258	251	248	240	235	231	231
Melt Pump Inlet Pressure (psi)	7777	420	10	10	10	10	10	10	10
Melt Pump Outlet Pressure (psi)	7777	200	470	250	310	260	360	400	400
Extruder (rpm)	200	200	200	200	200	200	200	200	200
Spinneret: no. of holes / Shape	14 R	14 R	14 R	14 R	14 R	14 R	14 R	14 R	14 R
Spinneret: capillary diameter & depth	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072
Metering pump size (cc/rev)	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Metering pump (rpm)	16.7	19.3	19.8	19.8	19.8	19.7	19.7	19.7	19.7
Throughput (lbs/hr)	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97
Filter type	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN
Monomer Exhaust Reading (inches water)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Quench air Flow rate (CF/M)	14.2	14.2	14.2	14.2	14.2	15.5	15.9	14.9	14.9
Quench air Temp. (deg. c)	19	19	19	19	19	19.3	19.6	19.7	19.7
Quench air Humidity %	40.8	40.8	40.8	40.8	40.8	39.8	39.5	39	39
% Torque	70	25	29	20	21	20	24	24	24
Nitrogen in Hoper	3	3	3	3	3	3	3	3	3
Need : polymer chips moisture	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Need : Free fat samples for FAV, COOH	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 2

Sample I.D.	#9	#10	#11	#12	#13	#14	#15	#16	#17
POLYMER TYPE	BHS	BHS 10% Lactam	BHS 10% Lactam	BHS 10% Lactam	BHS 10% Lactam	BHS 10% Lactam	BHS 10% Lactam	135	135 10% Lactam
Feeder Setting	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96
water on feeding zone	on	on	on	on	on	on	on	on	on
zone 1 Temp. (deg. c)	252	252	247	242	237	232	227	260	260
zone 2 Temp. (deg. c)	252	252	247	242	237	232	227	260	260
zone 3 Temp. (deg. c)	252	252	247	242	237	232	227	260	260
zone 4 Temp. (deg. c)	252	252	247	242	237	232	227	260	260
zone 5 Temp. (deg. c)	252	252	247	242	237	232	227	260	260
zone 6 Temp. (deg. c)	252	252	247	242	237	232	227	260	260
zone 7 Temp. (deg. c)	252	252	247	242	237	232	227	260	260
8 Connecting Plate Temp. (deg. C)	252	252	247	242	237	232	227	260	260
9 Block Temp. (deg. C)	252	252	247	242	237	232	227	260	260
10 Spin Pump Temp. (deg. C)	252	252	247	242	237	232	227	260	260
11 Top Cap (deg. C)	252	252	247	242	237	232	227	260	260
12 Spin Pack Temp. (deg. C)	252	252	247	242	237	232	227	260	260
Top Heated Sleeve Length (inches)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Top Heated Sleeve Temp. (deg. c)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Bottom Heated Sleeve Length (inches)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Bottom Heated Sleeve Temp. (deg. c)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Barrel Melt Temp. (deg. c)	259	260	254	249	245	240	235	270	269
Melt Pump Inlet Pressure (psi)	40	90	250	280	180	50	70	1200	300
Melt Pump Outlet Pressure (psi)	970	520	570	610	740	790	840	1600	1040
Extruder (rpm)	200	200	200	200	200	200	200	200	200
Spinneret: no. of holes / Shape	14 R	14 R	14 R	14 R	14 R	14 R	14 R	14 R	14 R
Spinneret: capillary diameter & depth	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072
Metering pump size (cc/rev)	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Metering pump (rpm)	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
Thruput (lbs/hr)	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97
Filter type	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN
Monomer Exhaust Reading (inches water)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Quench air Flow rate (CFM)	14.6	14.5	14.6	14.9	15	14.6	14.9	14.5	15.1
Quench air Temp. (deg. c)	19.5	19.9	19.2	19.2	18.7	19	19.4	18.5	19.2
Quench air Humidity %	38.7	39.3	39.7	41.6	39.7	40.3	39.4	38.6	41.1
% Torque	42	27	29	30	29	30	29	56	37
Nitrogen in Hopper	3	3	3	3	3	3	3	3	3
Need : polymer chips moisture									
Need : Free fall samples for FAV, COOH									

Table 3

Sample I.D.	#18	#19	#20	#21	#22	#23	#24	#25	#26
POLYMER TYPE	135 10% Lactam	135 10% Lactam	135 10% Lactam	135 10% Lactam	135 10% Lactam	135 10% Lactam	135 10% Lactam	195	195 10% Lactam
Feeder Setting	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96
water on feeding zone	on	on	on	on	on	on	on	on	on
zone 1 Temp. (deg. c)	255	250	245	240	235	230	225	300/289	290/273
zone 2 Temp. (deg. c)	255	250	245	240	235	230	225	300	290
zone 3 Temp. (deg. c)	255	250	245	240	235	230	225	300	290
zone 4 Temp. (deg. c)	255	250	245	240	235	230	225	300	290
zone 5 Temp. (deg. c)	255	250	245	240	235	230	225	300	290
zone 6 Temp. (deg. c)	255	250	245	240	235	230	225	300	290
zone 7 Temp. (deg. c)	255	250	245	240	235	230	225	300	290
8 Connecting Plate Temp. (deg. C)	255	250	245	240	235	230	225	300	290
9 Block Temp. (deg. C)	255	250	245	240	235	230	225	300	290
10 Spin Pump Temp. (deg. C)	255	250	245	240	235	230	225	300	290
11 Top Cap (deg. C)	255	250	245	240	235	230	225	300/300	290
12 Spin Pack Temp. (deg. C)	255	250	245	240	235	230	225	300	290
Top Heated Sleeve Length (Inches)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Top Heated Sleeve Temp. (deg. c)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Bottom Heated Sleeve Length (Inches)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Bottom Heated Sleeve Temp. (deg. c)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Barrel Melt Temp. (deg. c)	284	259	253	248	243	238	232	312	299
Melt Pump Inlet Pressure (psi)	630	470	450	630	800	580	190	1480	1080
Melt Pump Outlet Pressure (psi)	1080	1140	1280	1280	1330	1480	1700	1290	790
Extruder (rpm)	200	200	200	200	200	200	200	200	200
Spinneret: no. of holes / Shape	14 R	14 R	14 R	14 R	14 R	14 R	14 R	14 R	14 R
Spinneret: capillary diameter & depth	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072
Metering pump size (cc/rev)	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Metering pump (rpm)	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
Thruput (lbs/hr)	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97	2.97
Filter type	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN
Monomer Exhaust Reading (inches water)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Quench air Flow rate (CF/M)	15.2	14.9	14.5	14.4	14.9	14	14.2	14.6	14.8
Quench air Temp. (deg. c)	20.1	19.5	18.7	18	18.9	19.1	18.7	18.9	19.5
Quench air Humidity %	39.4	40.7	39.7	40.1	41.3	38.7	39.1	38.8	39.1
% Torque	39	38	40	37	39	40	42	52	38
Nitrogen in Hoper	3	3	3	3	3	3	3	3	3
Need : polymer chips moisture									
Need : Free fall samples for FAV, COOH									

Table 4

Sample I.D.	#27	#28	#29	#30
POLYMER TYPE	195 10% Lactam	195 10% Lactam	195 10% Lactam	195 10% Lactam
Feeder Setting	2.96	2.96	2.96	2.96
water on feeding zone	on	on	on	on
zone 1 Temp. (deg. c)	285/270	280/268	275/263	270/258
zone 2 Temp. (deg. c)	285	280	275	270
zone 3 Temp. (deg. c)	285	280	275	270
zone 4 Temp. (deg. c)	285	280	275	270
zone 5 Temp. (deg. c)	285	280	275	270
zone 6 Temp. (deg. c)	285	280	275	270
zone 7 Temp. (deg. c)	285	280	275	270
8 Connecting Plate Temp. (deg. C)	285	280	275	270
9 Block Temp. (deg. C)	285	280	275	270
10 Spin Pump Temp. (deg. C)	285	280	275	270
11 Top Cap (deg. C)	285	280	275	270
12 Spin Pack Temp. (deg. C)	285	280	275	270
Top Heated Sleeve Length (inches)	xxxx	xxxx	xxxx	xxxx
Top Heated Sleeve Temp. (deg. c)	xxxx	xxxx	xxxx	xxxx
Bottom Heated Sleeve Length (inches)	xxxx	xxxx	xxxx	xxxx
Bottom Heated Sleeve Temp. (deg. c)	xxxx	xxxx	xxxx	xxxx
Barrel Melt Temp. (deg. c)	296	289	284	279
Melt Pump Inlet Pressure (psi)	1250	50	860	1060
Melt Pump Outlet Pressure (psi)	860	890	970	1100
Extruder (rpm)	200	200	200	200
Spinneret: no. of holes / Shape	14 R	14 R	14 R	14 R
Spinneret: capillary diameter & depth	.024 X 0.072	.024 X 0.072	.024 X 0.072	.024 X 0.072
Metering pump size (cc/rev)	1.16	1.16	1.16	1.16
Metering pump (rpm)	19.7	19.7	19.7	19.7
Thruput (lb/hr)	2.97	2.97	2.97	2.97
Filter type	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN
Monomer Exhaust Reading (inches water)	open	open	open	open
Quench air Flow rate (CFM)	14.7	14.7	14.2	13.9
Quench air Temp. (deg. c)	19.2	18.7	20	18.7
Quench air Humidity %	46.1	41.5	43.1	39.4
% Torque	41	28	37	41
Nitrogen In Hoper	3	3	3	3

Tables

Sample I.D.	1-25	1-50	2-25	2-50	3-25	3-50	4-25	4-50	5-25	5-50	6-25	6-50	7-25	7-50
POLYMER TYPE	20 NMBM 70% Technic + 10% Lucam	20 NMBM 70% Technic + 10% Lucam	5% NMBM 85% Technic + 10% Lucam	5% NMBM 85% Technic + 10% Lucam	5% NMBM 70% Technic + 25% Lucam	5% NMBM 70% Technic + 25% Lucam	10% NMBM 75% Technic + 15% Lucam	10% NMBM 75% Technic + 15% Lucam	12.5% NMBM 70% Technic + 17.5% Lucam	12.5% NMBM 70% Technic + 17.5% Lucam	5% NMBM 77.5% Technic + 17.5% Lucam	5% NMBM 77.5% Technic + 17.5% Lucam	12.5% NMBM 77.5% Technic + 10% Lucam	12.5% NMBM 77.5% Technic + 10% Lucam
Polymer Type/Blend ID	Blend 1	Blend 1	Blend 2	Blend 2	Blend 3	Blend 3	Blend 4	Blend 4	Blend 5	Blend 5	Blend 6	Blend 6	Blend 7	Blend 7
SAMPLE START TIME														
SAMPLE FINISH TIME														
Run time (min)	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Finish type	F-137	F-137	F-137	F-137	F-137	F-137	F-137	F-137	F-137	F-137	F-137	F-137	F-137	F-137
Kiss roll (rpm)	3	3	3	3	3	3	3	3	3	3	3	3	3	3
WPU%	5.16	3.28	5.16	3.28	5.16	3.28	5.16	3.28	5.16	3.28	5.16	3.28	5.16	3.28
Roll # 1 Speed (m/min.)	3680	3680	3680	3680	3680	3680	3680	3680	3680	3680	3680	3680	3680	3680
LARGE Roll # 4 SPEED (m/min.)	RXT-1	RXT-1	RXT-2	RXT-2	RXT-1	RXT-1	RXT-2	RXT-2	RXT-1	RXT-1	RXT-2	RXT-2	RXT-1	RXT-1
Entangling														
Jet type														
air to jet (psi)														
Winder grove roll: Speed (m/min.)	4453	4372	4210	4291	4331	4331	4291	4331	4331	4291	4291	4174	4291	4291
Winder drive roll: Speed (m/min.)	4048	4048	4048	4048	4048	4048	4048	4048	4048	3901	3901	3901	3901	3901
Undrawn Denier	25	50	25	50	25	50	25	50	25	50	25	50	25	50
Feeder Setting														
water on feeding zone	on	on	on	on	on	on	on	on	on	on	on	on	on	on
zone 1 Temp. (deg c)	215	215	215	215	215	215	215	215	215	215	215	215	215	215
zone 2 Temp. (deg c)	215	215	215	215	215	215	215	215	215	215	215	215	215	215
zone 3 Temp. (deg c)	215	215	215	215	215	215	215	215	215	215	215	215	215	215
zone 4 Temp. (deg c)	215	215	215	215	215	215	215	215	215	215	215	215	215	215
zone 5 Temp. (deg c)	215	215	215	215	215	215	215	215	215	215	215	215	215	215
zone 6 Temp. (deg c)	210	210	210	210	210	210	210	210	210	210	210	210	210	210
zone 7 Temp. (deg c)	213	213	213	213	213	213	213	213	213	213	213	213	213	213
Block Temp. (deg.C)	213	213	213	213	213	213	213	213	213	213	213	213	213	213
Spin Pump Temp. (deg.C)	215	215	215	215	215	215	215	215	215	215	215	215	215	215
Top Cap (deg.C)	215	215	215	215	215	215	215	215	215	215	215	215	215	215
Spin Pack Temp. (deg.C)	216	216	216	216	216	216	216	216	216	216	216	216	216	216
Barrel Melt Temp. (deg. c)	217	218	218	218	217	217	217	217	217	217	217	217	217	217
Melt Pump Inlet Pressure (psi)	430	1490	350	480	700	1040	360	870	610	750	1100	1040	400	660
Melt Pump Outlet Pressure (psi)	180	490	190	440	0	20	90	250	80	120	30	180	210	430
Extruder (rpm)	220	220	220	220	220	220	220	220	220	220	220	220	220	220
Monomer Exhaust	inches water													
Spinneret: no. of holes / Shape	12 R	12 R	12 R	12 R	12 R	12 R	12 R	12 R	12 R	12 R	12 R	12 R	12 R	12 R
Spinneret: capillary diameter & depth	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061	0.0177 x 0.061
Metering pump size (cc/rev)	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Metering pump (rpm)	9.5	18	9.5	18	9.5	18	9.5	18	9.5	18	9.5	18	9.5	18
Thruput (lbs/hr)	1.5	3	1.5	3	1.5	3	1.5	3	1.5	3	1.5	3	1.5	3
Filter type	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN
Quench air Flow rate (CFM)	7.1	7.6	8.8	7.3	7.2	6.9	6.9	7.1	6.8	6.9	6.9	6.7	6.8	7.1
Quench air Temp. (deg. c)	19.8	19.8	19.5	20.3	19.1	18.7	19.5	18.9	20.1	18.5	19.1	19.7	18.9	19.1
Quench air Humidity %	41.2	40.1	42.7	43.1	41.6	39.2	40.4	42	43.1	39.7	40.2	38.9	41.2	40.3
% Torque	16	33	17	27	13	19	14	20	16	17	26	20	18	21
Nitrogen In Hopper	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Estimated lbs of Host + Binder Fiber (lb)	8.4	0	0	4	0.5	0	10.8	6.8	5.2	1.5	1.6	1.9	3.5	18.4

Table 8

Cycle Type: Scan Conditions		
Sample ID	Run #	
1-25 70/20/10	1	
	2	
	Ave	
2-25 85/5/10	1	
	2	
	Ave	
3-25 70/5/25	1	
	2	
	Ave	
4-25 75/10/15	1	
	2	
	Ave	
5-25 70/12.5/17.5	1	
	2	
	Ave	
6-25 77.5/5/17.5	1	
	2	
	Ave	
7-25 77.5/12.5/10	1	
	2	
	Ave	
1-50 70/20/10	1	
	2	
	Ave	
2-50 85/5/10	1	
	2	
	Ave	
3-50 70/5/25	1	
	2	
	Ave	
4-50 75/10/15	1	
	2	
	Ave	
5-50 70/12.5/17.5	1	
	2	
	Ave	
6-50 77.5/5/17.5	1	
	2	
	Ave	
7-50 77.5/12.5/10	1	
	2	
	Ave	

1st Heat Cycle									
300	Rate (C/min):			20	Hold (min):				
Onset (C)	1st Tm (C)	Melting Peaks		1st Tm- onset	2nd Tm (C)	2nd Area (J/g)	Total		
		(J/g)	(C)				ΔHf (J/g)		
159.5	176.7	52.6	17.2	213.1	18.5	71.1			
165.6	178.8	54.0	13.2	214.5	17.5	71.4			
162.6	177.8	53.3	15.2	213.8	18.0	71.3			
161.9	172.4	56.6	10.5	209.2	4.7	61.2			
159.7	170.1	47.6	10.4	208.5	2.9	50.5			
160.8	171.3	52.1	10.5	208.9	3.8	55.9			
137.2	165.4	65.0	28.2	202.3	3.7	68.7			
136.9	162.0	65.8	25.1	202.9	4.2	69.9			
137.1	163.7	65.4	26.7	202.6	3.9	69.3			
156.1	176.1	53.1	20.0	212.9	9.5	62.5			
151.9	171.9	57.0	20.0	210.8	12.6	69.6			
154.0	174.0	55.0	20.0	211.9	11.0	66.1			
156.5	175.5	55.1	19.0	213.4	19.7	74.8			
157.4	174.9	52.1	17.5	212.6	19.1	71.2			
157.0	175.2	53.6	18.3	213.0	19.4	73.0			
150.7	167.4	56.3	16.7	205.7	4.7	60.9			
142.8	169.2	71.9	26.4	209.0	4.1	76.0			
146.8	168.3	64.1	21.6	207.4	4.4	68.4			
165.6	177.2	43.0	11.6	213.8	17.2	60.2			
165.1	177.0	49.5	11.9	213.9	18.5	68.0			
165.4	177.1	46.2	11.8	213.9	17.9	64.1			
169.2	188.4	39.1	19.2	217.4	33.0	72.1			
175.0	189.5	44.4	14.5	217.7	32.4	76.8			
172.1	189.0	41.8	16.9	217.6	32.7	74.4			
163.7	173.7	56.5	10.0	211.2	5.9	62.4			
163.8	172.0	55.5	8.2	210.1	5.9	61.4			
163.8	172.9	56.0	9.1	210.7	5.9	61.9			
127.0	160.2	44.6	33.2	201.2	29.7	74.4			
127.0	162.7	49.9	35.7	202.6	37.5	87.4			
127.0	161.5	47.2	34.5	201.9	33.6	80.9			
157.9	174.3	42.4	16.4	212.1	15.1	57.5			
157.0	173.7	54.2	16.7	212.7	17.5	71.7			
157.5	174.0	48.3	16.6	212.4	16.3	64.6			
139.3	174.4	67.8	35.1	211.6	17.1	84.9			
142.4	173.7	62.2	31.3	212.6	16.6	76.7			
140.9	174.1	65.0	33.2	212.1	16.8	81.8			
152.5	169.6	50.3	17.1	206.8	6.2	56.5			
153.7	173.4	64.9	19.7	211.9	6.1	71.0			
153.1	171.5	57.6	18.4	209.4	6.2	63.7			
167.8	176.8	40.5	9.0	214.2	14.6	55.1			
164.3	177.0	54.3	12.7	214.3	17.4	71.7			
166.1	176.9	47.4	10.9	214.3	16.0	63.4			

Table 9

Sample ID.	10	1	2	3	4	5	6	7	8	8B	9	9B	12
POLYMER TYPE	Blend #10	Blend #1	Blend #2	Blend #3	Blend #4	Blend #5	Blend #6	Blend #7	Blend #8	Blend #8B	Blend #9	Blend #9B	MBM
Feeder Setting	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
water on feeding zone	on	on	on	on	on	on	on	on	on	on	on	on	on
zone 1 Temp. (deg. c)	215	215	215	215	215	215	215	215	215	215	215	215	258
zone 2 Temp. (deg. c)	215	215	215	215	215	215	215	215	215	215	215	215	258
zone 3 Temp. (deg. c)	215	215	215	215	215	215	215	215	215	215	215	215	258
zone 4 Temp. (deg. c)	215	215	215	215	215	215	215	215	215	215	215	215	258
zone 5 Temp. (deg. c)	215	215	215	215	215	215	215	215	215	215	215	215	258
zone 6 Temp. (deg. c)	210	210	210	210	210	210	210	210	210	210	210	210	258
zone 7 Temp. (deg. c)	210	210	210	210	210	210	210	210	210	210	210	210	258
8 Connecting Plate Temp. (deg. C)	213	213	213	213	213	213	213	213	213	213	213	213	258
9 Block Temp. (deg. C)	213	213	213	213	213	213	213	213	213	213	213	213	258
10 Spin Pump Temp. (deg. C)	215	215	215	215	215	215	215	215	215	215	215	215	258
11 Top Cap (deg. C)	215	215	215	215	215	215	215	215	215	215	215	215	258
12 Spin Pack Temp. (deg. c)	216	216	216	216	216	216	216	216	216	216	216	216	258
Barrel Melt Temp. (deg. c)	225	218	218	218	218	218	218	218	218	217	217	217	258
Melt Pump Inlet Pressure (psi)	220	850	1210	670	630	910	1340	920	450	760	470	1400	680
Melt Pump Outlet Pressure (psi)	600	330	460	520	520	420	560	430	460	470	620	390	570
Extruder (rpm)	200	200	200	200	200	200	200	200	200	200	200	200	200
Monomer Exhaust inches water	6R	6R	6R	6R	6R	6R	6R	6R	6R	6R	6R	6R	6R
Spinneret: no. of holes / Shape	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061
Spinneret: capillary diameter & depth	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Metering pump size (cc/rev)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Metering pump (rpm)	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Thruput (lbs/hr)	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN
Filter Type	7.1	7.2	7.4	7.3	7.5	7.4	7.2	7	7.4	6.9	7	7.1	7.1
Quench air Flow rate (CFM)	20.1	19.9	18.3	19.5	19.3	18.8	18.5	18.4	18.5	19.9	18.9	18.2	18.5
Quench air Temp. (deg. c)	54.5	52.2	45.2	51.1	52.5	49.7	50.1	52.4	53.6	51	39.4	52.1	36.8
Quench air Humidity %	21	22	27	28	25	22	29	22	21	22	22	28	23
% Torque	3	3	3	3	3	3	3	3	3	3	3	3	3
Nitrogen in Hoper	Yes												
Need : polymer chips moisture													

Table 11

Sample I.D.	Nylon Blend																MBM	MBM
	88-1	88-2	88-3	88-4	88-5	88-6	88-7	88-8	88-9	88-10	88-11	88-12	88-13	88-14	88-15	88-16	12-1	12-2
POLYMER TYPE	Nylon Blend																12	12
SAMPLE START TIME	9:08	9:10	9:12	9:14	9:16	9:18	9:20	9:22	9:24	9:26	9:28	9:30	9:32	9:34	9:36	9:38	8:35	9:40
SAMPLE FINISH TIME	9:20	9:22	9:24	9:26	9:28	9:30	9:32	9:34	9:36	9:38	9:40	9:42	9:44	9:46	9:48	9:50	9:35	10:01
Run time (min)	14	7	10	5	3	4	15	5	15	7	11	6	28	13	21	9	60	21
Finish type	F-137-10																F-137-10	
Kiss roll (rpm)	3.65																3.8	
Godets:																		
SMALL Roll #1 SPEED (m/min)	RXT-2																4090	
SMALL Roll #2 SPEED (m/min)																		
SMALL Roll #3 SPEED (m/min)																		
LARGE Roll #4 SPEED (m/min)	RXT-1																4090	
Entangling																		
Jet type	air to jet (ps)																	
Winder groove roll: Speed (m/min)																	4499	
Winder drive roll: Speed (m/min)																	4090	
Undrawn Denier																	20.0	
Need : undrawn yarn Denier, Instron																		
free fall FAY (after each run set)																		
submit free fall and polymer for FAY																		
Monomer Exhaust inches water																		

Table 13

Cycle Type:	
Scan Conditions	
Sample ID	Run #
1-2	1
	2
	Ave
2-1	1
	2
	Ave
3-1	1
	2
	Ave
4-2	1
	2
	Ave
5-2	1
	2
	Ave
6-1	1
	2
	Ave
7-4	1
	2
	Ave
8-1	1
	2
	Ave
10-1	1
	2
	Ave
11-1	1
	2
	Ave
8B-1	1
	2
	Ave
9-1	1
	2
	Ave
9B-1	1
	2
	Ave
12-1 MBM	1
	2
	Ave

1st Heat Cycle						
300	Rate (C/min):		20	Hold (min):		
Melting Peaks						
Onset 1 (C)	1st Tm (C)	ΔHf 1 (J/g)	Onset 2 (C)	2nd Tm (C)	3rd Tm (C)	ΔHf 2 (J/g)
137.2	148.5	3.5	178.6	182.3	215.3	52.2
137.9	149.2	3.7	178.8	182.3	215.3	52.5
137.6	148.9	3.6	178.7	182.3	215.3	52.3
127.3	139.0	3.7	177.7	180.8	214.3	58.3
125.8	137.3	3.9	177.8	181.1	215.4	58.8
126.6	138.2	3.8	177.8	181.0	214.9	58.6
138.7	148.8	3.2	176.0	178.2	212.9	50.1
138.3	148.4	3.2	175.9	178.0	213.5	51.5
138.5	148.6	3.2	176.0	178.1	213.2	50.8
135.3	146.9	3.9	179.1	183.1	215.7	56.3
137.2	147.6	4.0	179.1	183.0	215.6	57.2
136.3	147.3	3.9	179.1	183.1	215.7	56.8
131.8	143.2	4.0	178.6	182.0	215.3	59.1
129.1	141.1	4.2	179.9	184.9	216.2	57.5
130.5	142.2	4.1	179.3	183.5	215.8	58.3
112.0	126.1	5.2	180.4	187.6	217.1	63.0
110.6	124.4	4.8	179.9	187.4	217.1	67.0
111.3	125.3	5.0	180.2	187.5	217.1	65.0
131.2	142.8	4.0	180.6	187.5	216.9	63.3
132.3	143.8	3.9	180.9	187.6	216.7	59.7
131.8	143.3	4.0	180.8	187.6	216.8	61.5
122.6	134.6	3.9	178.9	183.4	216.1	63.6
128.9	140.1	3.9	179.5	183.7	215.7	57.1
125.8	137.4	3.9	179.2	183.6	215.9	60.3
135.6	146.0	3.3	172.2	174.3		49.9
131.5	142.5	3.3	172.3	174.1		54.3
133.6	144.3	3.3	172.3	174.2		52.1
122.6	135.2	3.8	171.3	173.0		60.1
116.2	128.1	3.8	171.1	173.4		63.9
119.4	131.7	3.8	171.2	173.2		62.0
118.9	133.6	4.4	178.5	184.0	215.5	62.1
118.7	132.7	4.2	179.0	184.1	215.9	61.9
118.8	133.2	4.3	178.8	184.1	215.7	62.0
125.6	138.3	4.6	179.7	188.4	216.7	60.5
123.8	137.2	4.2	179.8	188.4	216.6	62.3
124.7	137.8	4.4	179.8	188.4	216.7	61.4
122.1	134.5	4.0	178.2	181.9	215.7	61.7
121.5	135.0	4.3	178.4	182.1	214.7	60.2
121.8	134.8	4.2	178.3	182.0	215.2	61.0
114.9	132.3	5.1	210.6	214.3	220.7	73.4
118.6	134.9	5.6	211.0	214.1	220.8	71.6
116.8	133.6	5.3	210.8	214.2	220.8	72.5

Table 14

RXT-2 Extrusion

Sample I.D.	9B	9C	9D	9E	9F
POLYMER TYPE	Blend #9	Blend #9	Blend #9	Blend #9	Blend #9
water on feeding zone	on	on	on	on	on
zone 1 Temp. (deg c)	220	230	240	250	260
zone 2 Temp. (deg c)	220	230	240	250	260
zone 3 Temp. (deg c)	220	230	240	250	260
zone 4 Temp. (deg c)	220	230	240	250	260
zone 5 Temp. (deg c)	220	230	240	250	260
zone 6 Temp. (deg c)	220	230	240	250	260
zone 7 Temp. (deg c)	220	230	240	250	260
8 Connecting Plate Temp. (deg. C)	220	230	240	250	260
9 Block Temp. (deg.C)	220	230	240	250	260
10 Spin Pump Temp. (deg.C)	220	230	240	250	260
11 Top Cap (deg.C)	220	230	240	250	260
12 Spin Pack Temp. (deg.C)	220	230	240	250	260
Barrel Melt Temp. (deg. c)	225	235	245	255	265
Melt Pump Inlet Pressure (psi)					
Melt Pump Outlet Pressure (psi)					
Extruder (rpm)	200	200	200	200	200
Monomer Exhaust inches water					
Spinneret: no. of holes / Shape	6R	6R	6R	6R	6R
Spinneret: capillary diameter & depth	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061
Metering pump size (cc/rev)	1.16	1.16	1.16	1.16	1.16
Metering pump (rpm)	7.5	7.5	7.5	7.5	7.5
Thruput (lbs/hr)	1.13	1.13	1.13	1.13	1.13
Filter type	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN
Quench air Flow rate (CF/M)	7.1	7.1	7.1	7.1	7.1
Quench air Temp. (deg. c)	20.1	20.1	20.1	20.1	20.1
Quench air Humidity %	54.5	54.5	54.5	54.5	54.5
% Torque	21	21	21	21	21
Nitrogen in Hoper	3	3	3	3	3
Need : polymer chips moisture	No				

Table 16

RXT-1 Take-Up

Sample I.D.	9B	9C	9D	9E	9F
POLYMER TYPE	9	9	9	9	9
Nylon Blend					
SAMPLE START TIME					
SAMPLE FINISH TIME					
Run time (min)	5-10 min	5-10 min	5-10 min	5-10 min	5-10 min
Finish type	F-137-10	F-137-10	F-137-10	F-137-10	F-137-10
Kiss roll (rpm)	3.7	3.7	3.7	3.7	3.7
Godets:					
SMALL Roll #1 SPEED (m/min)	4090	4090	4090	4090	4090
SMALL R II #2 SPEED (m/min)					
LARGE Roll #3 SPEED (m/min)					
LARGE Roll # 4 SPEED (m/min.)	4090	4090	4090	4090	4090
Entangling					
jet type					
air to jet (psi)	4499	4499	4499	4499	4499
Winder groove roll: Speed (m/min.)	4090	4090	4090	4090	4090
Winder drive roll: Speed (m/min.)	20.0	20.0	20.0	20.0	20.0
Undrawn Denier					

Table 17

Cycle Type: Scan Conditions	
Sample ID	Run #
9 B	1
	2
	Ave
9 C	1
	2
	Ave
9 D	1
	2
	Ave
9 E	1
	2
	Ave
9 F	1
	2
	Ave
9 B As Received	1
	2
	Ave
9 F As Received	1
	2
	Ave

1st Heat Cycle						
300	Rate (C/min):		20	Hold (min):		
Melting Peaks						
Onset 1 (C)	1st Tm (C)	ΔHf 1 (J/g)	Onset 2 (C)	2nd Tm (C)	3rd Tm (C)	ΔHf 2 (J/g)
119.1	132.4	4.7	180.4	190.4	217.1	63.8
118.1	132.3	5.5	180.7	190.8	217.6	66.5
118.6	132.4	5.1	180.6	190.6	217.4	65.2
128.8	141.0	4.0	180.4	186.2	216.1	62.7
128.2	140.5	4.6	180.3	186.4	216.6	61.6
128.5	140.8	4.3	180.4	186.3	216.4	62.2
129.0	141.8	4.7	181.1	189.2	216.8	62.5
129.2	141.2	4.6	181.0	189.2	216.8	63.2
129.1	141.5	4.6	181.1	189.2	216.8	62.8
132.6	145.2	4.8	181.1	189.6	215.9	62.3
134.4	146.2	4.4	182.0	189.9	216.1	61.6
133.5	145.7	4.6	181.6	189.8	216.0	61.9
137.2	148.3	4.4	180.9	187.0	213.8	59.3
136.7	148.6	4.2	180.8	187.0	213.7	58.3
137.0	148.5	4.3	180.9	187.0	213.8	58.8
			177.9	190.1	217.3	63.9
			175.5	189.4	217.4	64.8
			176.7	189.8	217.4	64.3
			177.4	186.4	213.8	61.6
			175.7	185.5	213.1	66.3
			176.6	186.0	213.5	63.9

Table 18

RXT-2 Extrusion

Sample I.D.	9B	9C	9D	9E	9F
POLYMER TYPE	Blend #9	Blend #9	Blend #9	Blend #9	Blend #9
MBM/technic & lactam blends					
water on feeding zone	on	on	on	on	on
zone 1 Temp. (deg c)	220	230	240	250	260
zone 2 Temp. (deg c)	220	230	240	250	260
zone 3 Temp. (deg c)	220	230	240	250	260
zone 4 Temp. (deg c)	220	230	240	250	260
zone 5 Temp. (deg c)	220	230	240	250	260
zone 6 Temp. (deg c)	220	230	240	250	260
zone 7 Temp. (deg c)	220	230	240	250	260
8 Connecting Plate Temp. (deg. C)	220	230	240	250	260
9 Block Temp. (deg.C)	220	230	240	250	260
10 Spin Pump Temp. (deg.C)	220	230	240	250	260
11 Top Cap (deg.C)	220	230	240	250	260
12 Spin Pack Temp. (deg.C)	220	230	240	250	260
Barrel Melt Temp. (deg. c)	225	235	245	255	265
Melt Pump Inlet Pressure (psi)					
Melt Pump Outlet Pressure (psi)					
Extruder (rpm)	200	200	200	200	200
Monomer Exhaust inches water					
Spinneret: no. of holes / Shape	6R	6R	6R	6R	6R
Spinneret: capillary diameter & depth	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061
Metering pump size (cc/rev)	1.16	1.16	1.16	1.16	1.16
Metering pump (rpm)	7.5	7.5	7.5	7.5	7.5
Thruput (lbs/hr)	1.13	1.13	1.13	1.13	1.13
Filter type	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN
Quench air Flow rate (CF/M)	7.1	7.1	7.1	7.1	7.1
Quench air Temp. (deg. c)	20.1	20.1	20.1	20.1	20.1
Quench air Humidity %	54.5	54.5	54.5	54.5	54.5
% Torque	21	21	21	21	21
Nitrogen in Hoper	3	3	3	3	3
Need : polymer chips moisture	No				

Table 20

RXT-1 Take-Up

Sample I.D.	9B	9C	9D	9E	9F
POLYMER TYPE	9	9	9	9	9
Nylon Blend					
SAMPLE START TIME					
SAMPLE FINISH TIME					
Run time (min)	5-10 min	5-10 min	5-10 min	5-10 min	5-10 min
Finish type	F-137-10	F-137-10	F-137-10	F-137-10	F-137-10
Cliss r ll (rpm)	3.7	3.7	3.7	3.7	3.7
Godets:					
SMALL Roll #1 SPEED (m/min)	4090	4090	4090	4090	4090
SMALL Roll #2 SPEED (m/min)					
LARGE Roll #3 SPEED (m/min)					
LARGE Roll # 4 SPEED (m/min.)	4090	4090	4090	4090	4090
Entangling					
jet type					
air t jet (psi)					
Winder gr ve roll: Speed (m/min.)	4499	4499	4499	4499	4499
Winder drive roll: Speed (m/min.)	4090	4090	4090	4090	4090
Undrawn Denier	20.0	20.0	20.0	20.0	20.0

Table 24

[illegible][illegible]

Table 22

RXT-2 Extrusion

Sample I.D.	1	2	3	4	5
POLYMER TYPE	Blend #1	Blend #2	Blend #3	Blend #4	Blend #5
MBM/technic & lactam blends					
water on feeding zone	on	on	on	on	on
zone 1 Temp. (deg c)	253	253	253	253	253
zone 2 Temp. (deg c)	253	253	253	253	253
zone 3 Temp. (deg c)	253	253	253	253	253
zone 4 Temp. (deg c)	253	253	253	253	253
zone 5 Temp. (deg c)	253	253	253	253	253
zone 6 Temp. (deg c)	248	248	248	248	248
zone 7 Temp. (deg c)	248	248	248	248	248
8 Connecting Plate Temp. (deg. C)	251	251	251	251	251
9 Block Temp. (deg.C)	250	250	250	250	250
10 Spin Pump Temp. (deg.C)	252	252	252	252	252
11 Top Cap (deg.C)	252	252	252	252	252
12 Spin Pack Temp. (deg.C)	253	253	253	253	253
Barrel Melt Temp. (deg. c)	255	255	255	255	255
Melt Pump Inlet Pressure (psi)					
Melt Pump Outlet Pressure (psi)					
Extruder (rpm)	200	200	200	200	200
Monomer Exhaust inches water					
Spinneret: no. of holes / Shape	6R	6R	6R	6R	6R
Spinneret: capillary diameter & depth	.01778x.061	.01778x.061	.01778x.061	.01778x.061	.01778x.061
Metering pump size (cc/rev)	1.16	1.16	1.16	1.16	1.16
Metering pump (rpm)	7.5	7.5	7.5	7.5	7.5
Thruput (lbs/hr)	1.13	1.13	1.13	1.13	1.13
Filter type	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN	STD SCREEN
Quench air Flow rate (CF/M)	7.1	7.1	7.1	7.1	7.1
Quench air Temp. (deg. c)	20.1	20.1	20.1	20.1	20.1
Quench air Humidity %	54.5	54.5	54.5	54.5	54.5
% Torque	21	21	21	21	21
Nitrogen in Hoper	3	3	3	3	3
Need : polymer chips moisture	No				

Table 24

RXT-1 Take-Up

Sample I.D.	1	2	3	4	5
POLYMER TYPE	1	2	3	4	5
	Nylon Blend				
SAMPLE START TIME					
SAMPLE FINISH TIME					
Run time (min)	5-10 min	5-10 min	5-10 min	5-10 min	5-10 min
Finish type	F-137-10	F-137-10	F-137-10	F-137-10	F-137-10
Kiss r ll (rpm)	3.7	3.7	3.7	3.7	3.7
G defs:					
SMALL Roll #1 SPEED (m/min)	4090	4090	4090	4090	4090
SMALL Roll #2 SPEED (m/min)					
LARGE Roll #3 SPEED (m/min)					
LARGE Roll # 4 SPEED (m/min.)	4090	4090	4090	4090	4090
Entangling					
jet type					
air t jet (psi)	4499	4499	4499	4499	4499
Winder grove roll: Speed (m/min.)	4090	4090	4090	4090	4090
Winder drive roll: Speed (m/min.	20.0	20.0	20.0	20.0	20.0
Undrawn Denier					

Need : undrawn yarn Denier, Instron
, free fall FAV (after each run set)
submit free fall and polymer for FAV
Monomer Exhaust inches water

Cycle Type:		1st Heat Cycle									
Scan Conditions											
Sample ID	Run #	20	Hold (min):		Melting Peaks		Onset (C)		1st Tm (C)		ΔHf (J/g)
#1	1	179.4	190.9	216.3	59.7						
	2	179.3	190.5	216.0	60.2						
	Ave	179.4	190.7	216.2	60.0						
#2	1	180.6	193.1	216.5	61.8						
	2	181.1	192.8	216.5	60.5						
	Ave	180.9	193.0	216.5	61.2						
#3	1	185.1	199.5	218.1	62.9						
	2	184.1	199.0	218.1	66.3						
	Ave	184.6	199.3	218.1	64.6						
#4	1	201.9		219.7	67.6						
	2	202.0		219.2	68.5						
	Ave	202.0		219.5	68.1						
#5	1	185.8	199.5	218.0	61.5						
	2	186.3	200.0	218.3	61.1						
	Ave	186.1	199.8	218.2	61.3						
#10	1	170.5		172.1	51.8						
	2	170.5		172.3	49.9						
	Ave	170.5		172.2	50.8						
	1										
	2										
	Ave										
	1										
	2										
	Ave										
	1										
	2										
	Ave										
	1										
	2										
	Ave										

Table 26